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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,633	12/03/2001	Corinne Rosier	216566US2	7436
22850	7590	05/03/2007		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER CHANG, RICHARD	
			ART UNIT 2616	PAPER NUMBER
			NOTIFICATION DATE 05/03/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

09/998,633

Applicant(s)

ROSIER, CORINNE

Examiner

Richard Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 24-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-12, 19 and 24-32 is/are rejected.
- 7) ☒ Claim(s) 7-9, 13-18 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/03/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment and Arguments

1. Applicant's arguments and amendments, filed on 1/25/2007, with respect to claims 1-20 and 24-32 have been fully considered but are not persuasive.

Claims 21-23 had been canceled.

Claims 28-32 are newly added.

-- In response to applicant's argument that there is no reasonable expectation of success when combining the cited references US patent No. 5754754 ("Dudley et al.") in view of US patent No. 6,496,481 B1 ("Wu et al."). Dudley et al. teaches a method of error recovery systems using Automatic Repeat Request (ARQ) protocols and discloses 3 types of ARQ protocols (See Col. 1, lines 12-45) and Wu et al. teaches a method of error recovery systems using Automatic Repeat Request (ARQ) protocols more specific to the real-time application with more details on the manipulation of bitmap block in response to acknowledgement and retransmission status (See Col. 13, lines 6-43).

At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to combine Wu et al. with Dudley et al. in order to obtain a method of ARQ protocol for transmitting data between one transmitter and one receiver and to take advantage of a bitmap block taught by Wu et al. to include a predetermined plural number of fields associated with corresponding transmitted packet and each field representing a sequenced identifier corresponding to each packet of the transmitted and

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indicative bits of a state of acknowledgement of each transmitted packet in response to acknowledgement and retransmission status (See Fig. 3, Col. 8, lines 36-56).

The motivation to do so would have been to manipulation a bitmap block to include a predetermined plural number of fields associated with corresponding transmitted packet and each field representing a sequenced identifier corresponding to each packet of the transmitted and indicative bits of a state of acknowledgement of each transmitted packet in response to acknowledgement and retransmission status in ARQ protocols as suggested by Wu et al. in Col. 8, lines 36-56.

Thus, it is reasonable to combine the cited references US patent No. 5754754 ("Dudley et al.") in view of US patent No. 6,496,481 B1 ("Wu et al.").

Furthermore, the independent claim 1 includes subject matter of "associating a timer with a periodic reception of the bitmap block at the transmitter" which is broad and without a clear definition of necessary steps, thus carries less than minimum weight. During examination of patent application, unpatented claims are given broadest reasonable interpretation. Hence, the subject matter "associating a timer with a periodic reception of the bitmap block at the transmitter" (claim 1), is interpreted as associating a timer (36) with the bitmap blocks (70)" (See Fig. 1 and Fig. 2, Col. 5, line 38 - Col. 6, line 37).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, 10-12, 19 and 24-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent US patent No. 5754754 ("Dudley et al.") in view of US patent No. 6,496,481 B1 ("Wu et al.").

Regarding claims 1, and 24-27. Dudley et al. teach a method and system (10) for transmitting data between at least one transmitter (12) and at least one receiver (14) (See Fig. 1), in the form of packets (40, See Fig. 2), each of said data packets (40) being associated with an identifier (52) of said packet, said receiver (14) periodically sending a feedback message (60) to said transmitter (12), each feedback message (60) comprising at least one bitmap block (70) associated with a predetermined number of data packets having consecutive identifiers (72, more details are cited Wu et al. for combination), so as to selectively inform said transmitter (12) of a state of acknowledgement (acknowledged or unacknowledged) of each packets associated with the bitmap block (70), and associating a timer (36) with the bitmap blocks (70) (See Fig. 1 and Fig. 2, Col. 5, line 38 - Col. 6, line 37).

Dudley et al. teaches substantially all the claimed invention but did not disclose expressly the particular application involving limitations of

"a bitmap block including a predetermined plural number of fields associated with corresponding packet of data, each field representing a consecutive identifier

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corresponding to each packet of the transmitted packets and indicative of a state of acknowledgement of each transmitted packet and associating a timer with a periodic reception of the bitmap block at the transmitter”.

Wu et al. teaches a similar acknowledgement and retransmission method wherein a bitmap block including a predetermined plural number of fields associated with corresponding packet of data (bitmap in Fig. 3b), each field representing a consecutive identifier (sequenced identifier) corresponding to each packet of the transmitted packets (from Start to End using SID and EID, Fig. 3) and indicative of a state of acknowledgement of each transmitted packet (transmitted packet whether corrupted or received indication bits, for selective retransmission) and associating a timer with a periodic reception (set for expiration period) of the bitmap block at the transmitter (See Fig. 3, Col. 8, lines 36-56).

At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to combine Wu et al. with Dudley et al. in order to obtain a method for transmitting data between at least one transmitter and at least one receiver and to take advantage of a bitmap block including a predetermined plural number of fields associated with corresponding transmitted packet, each field representing a sequenced identifier corresponding to each packet of the transmitted packets from Start to End using SID and EID and indicative bits of a state of acknowledgement of each transmitted packet whether corrupted or received for selective retransmission and associating a timer with an expiration period of the bitmap block at the transmitter.

The motivation to do so would have been to use a bitmap block including a predetermined plural number of fields associated with corresponding transmitted packet, each field representing a sequenced identifier corresponding to each packet of the transmitted packets from Start to End using SID and EID and indicative bits of a state of acknowledgement of each transmitted packet whether corrupted or received for selective retransmission and associating a timer with an expiration period of the bitmap block at the transmitter as suggested by Wu et al. in Col. 8, lines 36-56.

Regarding claims 2, 6 and 11-12, Dudley et al. further teach that a first step of activating said timer (32), when said transmitter (12) sends to said receiver (14) the first of said data packets (40) of consecutive identifiers (52) associated with said block (header), so that said timer (32) switches to said activated state (See, Col. 6, lines 19-37).

Regarding claim 3-5, 10 and 19, Dudley et al. further teach that for a given bitmap block (68) (header), a first step of deactivating said timer (32) after a predetermined maximum duration (expired), and in that said data packets of said block (68) are then considered by said transmitter (12) in said unacknowledged state (See, Col. 6, lines 19-37).

Regarding claim 28-32, Dudley et al. teaches substantially all the claimed invention but did not disclose expressly the particular application involving limitations of "feedback message including bitmap block with every field indicating the state of acknowledgement as acknowledged".

Wu et al. further teaches that ACK message including status bitmap block with every field indicating the state of acknowledgement as acknowledged (See Col. 13, lines 23-43).

At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to combine Wu et al. with Dudley et al. in order to obtain a method for transmitting data between one transmitter and one receiver and to take advantage of an ACK message including status bitmap block with every field indicating the state of acknowledgement as acknowledged.

The motivation to do so would have been to use an ACK message including status bitmap block with every field indicating the state of acknowledgement as acknowledged as suggested by Wu et al. in Col. 13, lines 23-43.

Allowable Subject Matter

4. Claims 7-9, 13-18 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and if no art rejection can be applied.

Reason for indicating Allowable Subject Matter

5. The following is a statement of reasons for the indication of allowable subject matter: The prior art along or in combination fails to teach or make obvious the following limitations:

"after deactivating said timer, and wherein at least one packet associated with said bitmap block being in said unacknowledged state, positioning at least some unacknowledged packets associated with said bitmap block in a retransmission queue" as recited in the dependent claim 7.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Chang whose telephone number is (571) 272-3129. The examiner can normally be reached on Monday - Friday from 8 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

rk

rk

Richard Chang
Patent Examiner
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SUPERVISORY PATENT EXAMINER